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November 29, 2004

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FILING DATE: November 07, 2003
RELATED PCT APPLICATION NUMBER: PCT/US04/36275

Certified by



Jon W Dudas

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PTO/SB/16 (02-01)

Approved for use through 10/31/2002. OMB 0651-0032
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PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

Express Mail Label No. E	V413351752U	<u> </u>									
		IN	VENTOR(S)								
Given Name (first and middle [if any])		Family N	lame or Sumam	e (City	Residencer State or	ence or Foreign Country)					
Bret David	·		Brownsburg, Indiana								
James Duane			Tenbarge		Fishers, Indiana						
Additional inventors are being named on the separately numbered sheets attached hereto											
	TITLE C	F THE INV	ENTION (280 ch	aracters max	()						
AUTO DISPLAY OF CHANNEL BANNER ON A PROGRAM CHANGE											
CORRESPONDENCE ADDRESS											
Direct all correspondence to:	Place Customer Number										
Customer Number		_	Bar (Code Labe	l here						
OR Type Customer Number here											
Firm <i>or</i> Individual Name	JOSEPH S. TRIPOLI, THOMSON LICENSING INC.										
Address	PATENT OPERATIONS.										
Address	P. O. BOX 5312										
City	PRINCETON		State	NJ		ZIP	08543-5312				
Country	USA		Telephone	phone 609-734-6834			Fax 609-734-6888				
ENCLOSED APPLICATION PARTS (check all that apply)											
Specification Number of Pages 3 CD(s), Number											
☐ Drawing(s) Number of Sheets ☐ Other (specify)											
Application Data Sheet. See 37 CFR 1.76											
METHOD OF PAYMENT OF F	ILING FEES FO	OR THIS PR	OVISIONAL AP	PLICATION F	OR PATE	NT (chec	к опе)				
Applicant claims small	entity status	See 37 CF	R 1 27								
A check or money orde	-						FILING	FEE			
AMOUNT (\$)								<u>rr (\$)</u>			
The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number: 07-0832 160											
Payment by credit card. Form PTO-2038 is attached.											
The invention was made by	an agency of			nment or un	der a co	ntract wit	n an agen	cy of			
the United States Governm	ent.										
No.Yes, the name of the U.S. (Government ag	eacy and the	e Government co	ntract numbe	er are:						
Respectfully submitted,	FIN	/		Date	11/7/03		·				
SIGNATURE	cay In	<u>~</u>									
TYPED or PRINTED NAME Reitseng Lin (if appropriate)						42,804					
TELEPHONE 609 734-6813			Dock	et Number:	L	U030298					

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this term and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C., 20231.

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CEE TO ANICANTTAL	<u> </u>	Complete if Known							
FEE TRANSMITTAL	Applic	Application Number							
for FY 2003	Filina	Filing Date							
10111 2000		First Named Inventor		Bret David Hawkins					
Effective 01/01/2003. Patent fees are subject to annual revision.	 	Examiner Name		DIEL DAVIO FIAWAIIIS					
Applicant claims small entity status. See 37 CFR 1.27									
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TOTAL AMOUNT OF PAYMENT (\$) 160	Attorn	Attorney Docket No.			PU030298				
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Number		**			or cover sheet.				
Deposit	1053	130	1053	130	Non-English specification				
Account Name	1812 1804	2,520 920°	1812 1804	2,520 920°	For filing a request for reexamination Requesting publication of SIR prior to				
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☐ Charge fee(s) indicated below ☐ Credit any overpayments ☐ Charge any additional fee(s) during the pendency of this application	1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action				
Charge fee(s) indicated below, except for the filling fee to the above-identified deposit account.	1251	110	2251	55	Extension for reply within first month				
FEE CALCULATION	1252	420	2252	205	Extension for reply within second month				
1. BASIC FILING FEE	1253	950	2253	465	Extension for reply within third month				
Large Entity Small Entity	1254	1,480	2254	725	Extension for reply within fourth month				
Fee Fee Fee Fee <u>Fee Description</u> Code (\$) Code (\$) Fee Paid	1255	2,010	2255	985	Extension for reply within fifth month				
1001 770 2001 375 Utility filing fee	1401	330	2401	160	Notice of Appeal				
1002 340 2002 165 Design filing fee	1402	330	2402	160	Filing a brief in support of an appeal				
1003 530 2003 260 Plant filing fee	1403	290	2403	140	Request for oral hearing Petition to institute a public use				
1004 770 2004 375 Reissue filing fee 1005 160 2005 80 Provisional filling fee 160		1,510	1451	1,510	proceeding				
100 100 2003 60 Frombining less 100	1452	110	2452	55	Petition to revive - unavoidable				
SUBTOTAL (1) (\$) 160	1453 1501	1,330	2453	650	Petition to revive – unintentional				
2. EXTRA CLAIM FEES		1,330 480	2501 2502	650 235	Utility issue fee (or reissue) Design issue fee				
Extra Fee from Fee		640	2502	315	Plant issue fee				
Total Claims - ** = 0 X = 0	1503 1460	130	1460	130	Petitions to the Commissioner				
Total Claims = 0 X = 0	1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)				
Claims = 0 X = 0	1806	180	1806	180	Submission of Information Disclosure Stmt				
Multiple Dependent X = 0	8021	40	8021	40	Recording each patent assignment per property (times number of				
Large Entity Small Entity Fee Fee Fee Fee Fee Fee Fee Pescription	1809	770	2809	375	properties) Filing a submission after final rejection				
COUR (3) COUR (3)	1,	774	2000	275	(37 CFR § 1.129(a))				
1202	1810	770	2810	375	For each additional invention to be examined (37 CFR § 1.129(b))				
1203 290 2203 140 Multiple dependent claim, if not paid	1801	770	2801	375	Request for Continued Examination (RCE)				
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"or number previously paid, if greater, For Reissues, see above					(8) 0				

Name (Print/Type) Reitseng Lin Registration No. Attorney/Agent) 42,804 Telephone 609-734-6813 Date November 7, 2003

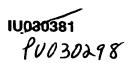
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AUTO DISPLAY OF CHANNEL BANNER ON A PROGRAM CHANGE

Technical Field of Invention

This invention relates to the field of television for automatically displaying information about the next program before the ending of the current program.

Background Art

When a current program is about to end, the user cannot tell what the next program in the same channel is without manually pressing the INFO key on the remote to bring up the program information such as channel banner or without manually entering a program guide to get the title information.

Disclosure of Invention

According to the principles of the invention, when a television apparatus detects that a current program is ending in a predetermined time interval, the television apparatus automatically displays the program information such as channel banner or title of the next program.

Furthermore, if a new program is received before the end of the current program, the television apparatus updates the displayed program information according to the information included in the newly received program guide.

Brief Description of Drawings

FIG. 1 is an illustrative flow chart showing how a television apparatus displays the program information for the next program when the current program is about to end.

FIGs. 2 and 3 each show an example of a television apparatus suitable for implementing the process shown in FIG. 1.

Detailed Description

A television apparatus, such as a television made by Thomson Inc., Indianapolis, Indiana, can receive guide data from Gemstar or PSIP (Program and System Information Protocol) tables on ATSC (Advanced Television Systems Committee) streams. ATSC is a high definition television standards body. For illustration purposes, the PSIP data is used in the following discussion, but something similar could be done with data from Gemstar. Essentially there is data in the PSIP EIT (event information tables) which

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includes start and end times of a program or time information necessary for deriving the start and end times of the program. Using this information, a television apparatus can detect that a current program is about to end in a predetermined time and pop the program information such channel banner and program title of the next program. Additionally, when the television apparatus receives an updated PSIP guide before the end of the current program, the television apparatus may display the new guide information to the user automatically. By automatically displaying this information, the user is no longer required to manually bring up the channel banner or guide to see what the next program is.

FIG. 1 illustrates the process of displaying the program information, illustratively the channel banner, of the next program before the current program ends.

FIGs. 2 and 3 each show an embodiment of a television apparatus that can be used to implement the process described in FIG. 1.

While this invention has been described with regard to a few presently preferred embodiments, those skilled in this art will readily appreciate that many alternative modes and embodiments can be carried out without departing from the spirit and scope of this invention.

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CLAIMS

What is claimed is:

1. A method for displaying information of a next program by a television apparatus before the end of a currently showing program, the method comprising the steps of:

acquiring by the television apparatus end time of the currently showing program from a program guide;

determining by the television apparatus using the end time whether the currently showing program is ending in a predetermined time; and

if the currently showing program is ending within the predetermined time, the television apparatus displaying information of the next program.

2. A television apparatus comprising:

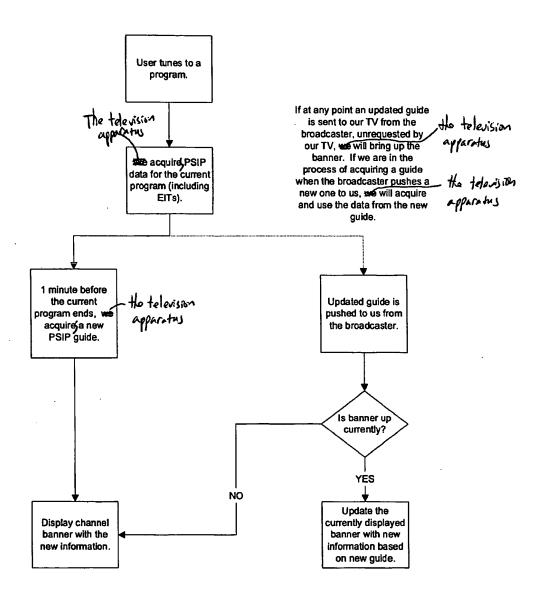
storage for storing program information for each program, including time information for each program; and

a controller for determining whether a currently showing program is ending in a predetermined time using the time information, wherein If the currently showing program is ending in the predetermined time, the controller displays information of a next program.

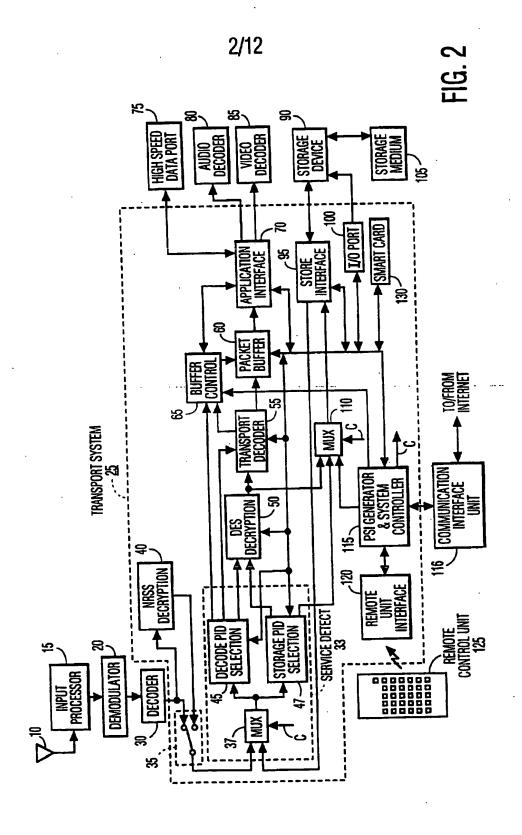
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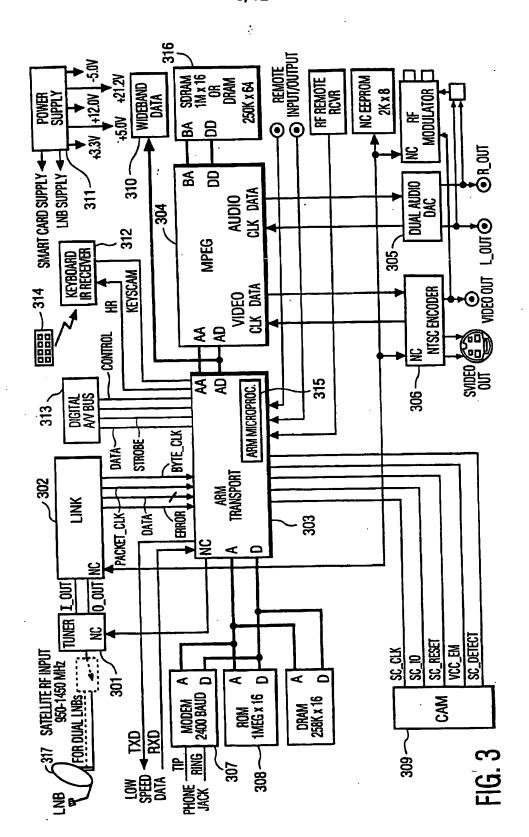
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